UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATIENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

NOTICE OF ALLOWANCE AND FEE(S) DUE

22850 7590 03042011 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA. VA 22314 EXAMINER

CAVALLARI, DANIEL J

ART UNIT PAPER NUMBER

2836

DATE MAILED: 03/04/2011

 APPLICATION NO.
 FILING DATE
 FIRST NAMED INVENTOR
 ATTORNICY DOCKET NO.
 CONFIRMATION NO.

 10/543,173
 07/22/2005
 Massaki Yamada
 274300US2PCT
 7941

TITLE OF INVENTION: POWER SUPPLY APPARATUS

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	06/06/2011

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

IL PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 or Fay (571)-273-2885

appropriate. All further of	orrespondence includir I below or directed oth	ig the Patent, advance of	UE FEE and PUBLICAT orders and notification of r (a) specifying a new corre	naintenance fees w	ill be i	mailed to the current	correspondence address as	
CURRENT CORRESPONDEN	NCE ADDRESS (Note: Use BI 7590 03/04 AK, MCCLELLA EET		pap haw IEUSTADT, L.L.P.	ers. Each additional e its own certificate Cert	paper of mai dificate	, such as an assignmen ling or transmission. of Mailing or Transu) Transmittal is being	r domestic mailings of the or any other accompanying it or formal drawing, must mission deposited with the United t class mail in an envelope above, or being facsimile te indicated below.	
						,	(Depositor's name)	
							(Signature)	
							(Date)	
APPLICATION NO. FILING DATE		FIRST NAMED INVENTOR		ATTORNEY DOCKET NO.		CONFIRMATION NO.		
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nonprovisional	NO	\$1510	\$300	\$0		\$1810	06/06/2011	
EXAMI	NER	ART UNIT	CLASS-SUBCLASS	l				
CAVALLARI,	DANIEL J	2836	307-066000	-				
	ndence address (or Cha 122) attached. atton (or "Fee Address or more recent) attach ID RESIDENCE DATA ss an assignce is ident in 37 CFR 3.11. Comp	inge of Correspondence Indication form ed. Use of a Customer A TO BE PRINTED ON	2 For printing on the p (1) the annes of up to or agents OR, alternati (2) the name of a single registered adtorney or a 2 cognitive of a single listed, an oname will be THE PATENT (print or ty) data will appear on the p 17 a substitute for filing an (B) RESIDENCE: (CITY	3 registered patent rely, e firm (having as a agent) and the name meys or agents. If r printed. be) atent. If an assigne assignment.	memb es of up no nam	er a 2	ocument has been filed for	
Please check the appropria	te assignee category or	categories (will not be p	printed on the patent):	Individual 🚨 Co	rporati	on or other private gro	up entity 🚨 Government	
4a. The following fee(s) an Issue Fee Publication Fee (No	small entity discount p	permitted)	A. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) A. check is enclosed. Payment by reofit card. Form PTO-2038 is attached. The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overspownent, to Deposit Account Number (enclose an extra copy of this form).					
 Change in Entity Statu a. Applicant claims 			☐ b. Applicant is no lon	ger claiming SMAL	L ENT	TTY status. See 37 CF	R 1.27(g)(2).	
NOTE: The Issue Fee and interest as shown by the re	Publication Fee (if requords of the United Sta	uired) will not be accept ites Patent and Trademar	ed from anyone other than t k Office.	he applicant; a regis	stered a	ttorney or agent; or th	e assignee or other party in	
Authorized Signature				Date				
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This collection of informal an application. Confidentis submitting the completed this form and/or suggestion Box 1450, Alexandria, Vin Alexandria, Virginia 2231:	ality is governed by 35 application form to the ns for reducing this bu reinia 22313-1450. DO	FR 1.311. The informati U.S.C. 122 and 37 CFR USPTO. Time will var rden, should be sent to the NOT SEND FEES OR	ion is required to obtain or a 1.14. This collection is est y depending upon the indivi- he Chief Information Office COMPLETED FORMS TO	retain a benefit by the imated to take 12 m idual case. Any contr., U.S. Patent and T. D'THIS ADDRESS.	ne publ ninutes mment Fraden SENI	ic which is to file (and to complete, includin s on the amount of tin ark Office, U.S. Deps of TO: Commissioner f	by the USPTO to process) g gathering, preparing, and ne you require to complete artment of Commerce, P.O. for Patents, P.O. Box 1450,	

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PTOL-85 (Rev. 02/11) Approved for use through 08/31/2013. OMB 065



APPLICATION NO

10/543.173

ALEXANDRIA, VA 22314

UNITED STATES PATENT AND TRADEMARK OFFICE

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CAVALLARI, DANIEL J

ART UNIT 2836

274300US2PCT

DATE MAILED: 03/04/2011

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

Masaki Yamada

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

- The information on this form will be treated confidentially to the extent allowed under the Freedom
 of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of
 records may be disclosed to the Department of Justice to determine whether disclosure of these
 records is required by the Freedom of Information Act.
- A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
- 3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
- 4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
- 5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
- A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
- 7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2004 and 2006. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals
- 8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
- A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Application No. Applicant(s) 10/543,173 YAMADA ET AL. Notice of Allowability Examiner Art Unit DANIEL CAVALLARI 2836 -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFB 1.313 and MPEP 1308. This communication is responsive to 11/22/2010. 2. The allowed claim(s) is/are 18-22. 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). b) Some* c) None of the: 1. A Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)). * Certified copies not received: _____. Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient. CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached 1) Thereto or 2) to Paper No./Mail Date (b) I including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d). 6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL. Attachment(s) 1. Notice of References Cited (PTO-892) 5. Notice of Informal Patent Application 2. Notice of Draftperson's Patent Drawing Review (PTO-948) Interview Summary (PTO-413), Paper No./Mail Date Information Disclosure Statements (PTO/SB/08). 7. T Examiner's Amendment/Comment Paper No./Mail Date

of Biological Material

4. T Examiner's Comment Regarding Requirement for Deposit

9. ☐ Other

8. X Examiner's Statement of Reasons for Allowance

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/22/2010 has been entered.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Surinder Sachar on 2/17/2011.

The application has been amended as follows:

Claims 1, 4-12, and 15-17 are hereby CANCELLED.

Allowable Subject Matter

Claims 18-22 are allowed.

Application/Control Number: 10/543,173

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The following is an examiner's statement of reasons for allowance:

The claims in the application are deemed to be directed to an nonobvious improvement over the prior art, particularly over Keizo et al. (Keizo) (JP 11-178216). The primary reason for allowance of the claims is the inclusion of the particular interconnections of the switch, first and second inverter/rectifiers, Power supply and load. More particularly, the first inverter/rectifier connected in parallel with the series connection of the switch and the inverter/rectifier AC side terminals connected to the load; the second inverter/rectifier connected in series with the power source and with its AC terminals connected to the load. Keizo teaches a power supply apparatus comprising a switch (2, see fig2) in series between an inverter/rectifier (6) and a load (3) with a second inverter/rectifier (4) connected in parallel to the load (3) however Keizo fails to teach the particular claimed interconnections of Applicant's invention.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel Cavallari whose telephone number is 571-272-8541. The examiner can normally be reached on Monday-Thursday 9:00am-5:30pm.

Art Unit: 2836

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jared Fureman can be reached at (571)272-2391. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel Cavallari/

February 17, 2011

/Jared J. Fureman/ Supervisory Patent Examiner, Art Unit 2836